LOUISIANA DEPARTMENT OF WILDLIFE & FISHERIES

OFFICE OF FISHERIES
INLAND FISHERIES DIVISION

PART VI -A

WATERBODY MANAGEMENT PLAN SERIES

LAKE PROVIDENCE

LAKE HISTORY & MANAGEMENT ISSUES

CHRONOLOGY

DATE – March 2012

Prepared by Ryan Daniel, Biologist Manager, District 2

TABLE OF CONTENTS

LAKE HISTORY

GENERAL INFORMATION

Date reservoir formed

Natural inactive oxbow of the Mississippi River (Figure 1).

Figure 1. Aerial photo of Lake Providence, Louisiana. Google Earth Imagery date 09-17-2004.

Impoundment

Owner – State of Louisiana.

Purposes for creation – naturally created, water level maintained for recreation and residential development.

Size

1,380 surface acres.

Watershed

Approximately 11,000 acres (8:1 ratio), mostly agricultural lands, some residential.

Pool stage

90.0 ft. Mean Sea Level (MSL).

Parish/s located

East Carroll Parish.

Border waters

Lake Providence receives inflows/outflows from Baxter Bayou, Tensas Bayou, and Providence Bayou.

Spillway widths

Tensas Bayou: 40 feet (Figure 2)
Baxter Bayou: 50 feet (Figure 3)

Drawdown description

Baxter Bayou Structure: 5 ft. x 4 ft. manually operated vertical lift gate.
Condition – Fair, constructed 1973.
Drawdown Capability – 5ft., (MSL) = 85 ft. Drawdown rate is reported to be less than 1 inch per day. This structure has been identified as being incapable of effective and maximum (5 ft.) drawdowns due to its insufficient size.

Figure 2. Tensas bayou weir at Lake Providence, LA. Photo taken June, 2011.

Figure 3. Baxter Bayou water control structure and weir located in Baxter Bayou, approximately 500 feet downstream from Lake Providence,LA. Photo taken June, 2011.

Who controls

Lake Providence Lake Commission

LAKE AUTHORITY

Association

Lake Providence Lake Commission – The following residents of Lake Providence are members of the Lake Commission as of July, 2011: Francis Lensing (president), Phillip Brown, Ronza O'Steen, Jack Kiefer, George Jackson. Members are appointed by the East Carroll Parish Police Jury, contact info: phone: 318-559-2256, email: ecpj@bayou.com.

Authorization

Lake Commission members are appointed by the East Carroll Parish Police Jury.

ACCESS

Map with locations shown in Figure 1 (above).

Boat Ramps

Public – Airport Ramp: located in "the chute" area, SE corner of the lake, concrete, good condition, 2 lanes, 30 vehicle capacity parking lot
Coordinates: N32°49'10", W91°11'13".

Hwy. 65 Ramp: located adjacent to highway 65 on west side of lake, recently renovated, concrete, single lane, 10 vehicle capacity parking lot
Coordinates: N32°48'44", W91°11'32".

Private – Lakeview Inn Hotel: located adjacent to highway 65 across from the hotel, near NW corner of lake, concrete, single lane, parking and fee payment at hotel.

Piers

Private residential only.

State/Federal facilities

None

Fishing Structures

None

SHORELINE DEVELOPMENT

Residential

Much of the lake's shoreline is in residential development.

Business/Industry

A few small businesses, mostly adjacent to Hwy. 65 on the west side, are located near or adjacent to the shoreline.

Agricultural

Cotton, corn, and soybeans are typically grown in the surrounding area, though no agricultural fields are located on the immediate shoreline of the lake.

PHYSICAL DESCRIPTION OF LAKE

Shoreline length

12 miles

Timber type

Bald cypress *Taxodium distichum* is abundant along much of the shoreline and shallow "flats" at either end of the lake.

Average depth
12 feet

Maximum depth
37 feet

Natural seasonal water fluctuation
1 - 4 feet

EVENTS/PROBLEMS

Fish Consumption Ban Associated with Pesticide Contamination (1970's)

Consumption of fish from Lake Providence was banned from 1978 – 1982 by the LA Dept. of Health and Human Resources (LDHH) due to elevated levels of the pesticides toxaphene and DDT in several fish species. Routine fish sampling prior to the ban had shown elevated levels of toxaphene residuals and derivatives of DDT in some fish. Elevated levels of both chemicals were discovered in channel catfish *Ictalurus punctatus* in April 1975. A 1.5 lb. largemouth bass in 1976 was found to have very high levels of derivatives of both pesticides. An August 1978 sample showing that 6 of 17 fish contained above "Alert" level amounts of toxaphene prompted the LDHH to implement a ban on fish consumption in September 1978. The Food and Drug Administration defines "Alert" as being unsafe for long term consumption. Excessive non-point agricultural runoff was identified as the source of these toxic pesticides. Toxaphene attaches to soil particles and has a long residual life. Prior to the ban, predatory fish populations had declined drastically, especially during the period from 1964 – 1975. No largemouth bass, *Micropterus salmoides* were collected in biomass (rotenone) samples taken in 1974 and 1975. Also, very few crappie *Pomoxis spp.* or gar *Lepisosteus spp.* were collected in these samples. The cause of this decline was not determined, though pesticide contamination was suspected. Toxaphene has been known to be a causative agent in numerous fish kills, though there has been no evidence to indicate severe population reductions (Sept. 9, 1977). USDA/State Assessment Team on Toxaphene: Assessment of Toxaphene in Agriculture). Banning of these chemicals by the State and E.P.A., along with modern agricultural practices that reduce runoff has led to the recovery of Lake Providence from pesticide contamination.

Commercial Fishing Regulation (1981)

On July 8, 1981, the East Carroll Police Jury closed the lake to trammel nets, gill nets, trotlines, and jug fishing during the period beginning May 15 through September 15 of each year. The primary purpose of this regulation was to protect skiers. In March 1992, legislation was passed (Appendix A) that prohibits the use of gill and trammel nets in Lake Providence except during a special recurring trammel and gill netting season to commence each year at sunrise on November 1 and close at sunset on the last day of February the following year. The trammel and gill nets allowed during the special recurring season shall have a minimum mesh size of three and one-half inch bar and seven inch stretched. Said net may remain set overnight, but captured fish must be removed during daylight hours only.

Baxter Bayou Control Structure and Turbidity Issue (1970's – 1980's)

Excessive turbidity in Lake Providence during the 1970's was blamed by many residents on the new water control structure in Baxter Bayou. They argued that the outflow of the lake had been altered, thus no longer allowing suspended sediments to "flush out" following heavy rainfall. Local agricultural practices and drainage issues eventually identified as the primary culprit.

East Carroll Parish Watershed Study (1976 – 1979)

Partners in this study included the East Carroll Soil and Water Conservation District, East Carroll Parish Police Jury, LA D.O.T.D, and the U.S.D.A Soil Conservation Service. Primary purposes of the study were to address watershed protection, flood prevention, and drainage issues in East Carroll Parish. Specific goals for Lake Providence included reduction of all types of pollution and improvement of fisheries. In the September 1976 Field Examination Report and Study Plan for the East Carroll Watershed Project (USDA – SCS), sedimentation problems were identified, elevated pesticide levels and associated decline of predatory game fish were mentioned, as was a proposed drainage diversion around Lake Providence. In the East Carroll Watershed Preliminary Invoice Report of November 1977 (Dist. 2 files), alternatives were given to improve the watershed. These alternatives consisted of a combination of channel work, weir construction, drainage diversions and culvert installations. In 1979, LDWF recommended re-routing agricultural runoff around Lake Providence. A series of diversion projects around Lake Providence were initiated in the late 1970's and have contributed to a significant reduction of agricultural runoff and associated pollutants from entering the lake.

MANAGEMENT ISSUES

AQUATIC VEGETATION

Type Map

No formal type mapping of vegetation has been conducted on Lake Providence. The following surveys/observations have been documented:

A July, 1988 Survey by L. Richardson, LDWF – "An overview observation of the entire lake indicates the lake is in good to excellent condition. However, the southeast end (flat) located in downtown Lake Providence has a severe topped-out infestation of southern naiad *Najas guadalupensis.* The infestation extends to a 5.5 – 6 ft. depth in the flat portion of the lake. A bank line fringe exists on both the north and south banks for about .5 miles. The area of infestation was plotted on an aerial photo. Planimeter readings indicate the extent of infestation covers approximately 55 acres." Recommended control methods included granular Endothall® at a rate of 200 lbs./acre or liquid diquat dibromide at a rate of 2 gal./acre.

A June, 2008 LDWF Survey - This survey was in response to complaints and concern from shoreline residents about emergent shoreline vegetation in the lake. A total coverage of 1.35 acres of alligator weed, *Alternanthera philoxeroides* was documented. There was no significant coverage of any other species. Most of this coverage was near the hospital and Baxter Bayou areas of the lake.

Biomass

No aquatic plant biomass sampling conducted.

Treatment history by year available:

Biological

Grass carp *Ctenopharyngodon idella* were first observed in Lake Providence in 1987. Their origin is unknown. LDWF has never stocked grass carp into Lake Providence. It is believed that they were either illegally stocked or were introduced into the lake following high water by a breach of the weir at Tensas Bayou. These fish may have provided at least partial control of the southern naiad infestation of 1988. They have been observed in the lake up until at least 2005.

Mechanical

None

Chemical

Routine spraying of contact herbicides for control of floating and emergent species has been performed by LDWF spray crews since the 1960's. Species most commonly treated include: alligator weed, water pennywort *Hydrocotyle umbellata*, and water hyacinth *Eichhornia crassipes*. Diquat dibromide, glyphosate, and 2, 4-D has been the most commonly used herbicides.

1988 – The southern naiad infestation described above was treated with herbicides, though it is unclear which herbicides were used. Most likely, the recommended applications of either Aquathol or diquat dibromide were made. By 1989, the total coverage had been reduced significantly, and by 1990 it appeared to have been eliminated.

HISTORY OF REGULATIONS

Recreational

Black Bass (Largemouth or Spotted)

State Regulations have always been in effect.

Crappie (Black or White)

50 fish creel, no size limit.

Other Species

Buffalofish or their hybrids: 16" min. length, 25 per day under 16"
Freshwater Drum (Gaspergou): 12" min. length, 25 per day under 12"
Bowfin (Choupique, Grinnell): 16" min. length
Channel Catfish: 11" min. length (see Catfish below for possession limit)
Blue Catfish: 12" min. length (see Catfish below for possession limit)
Flathead Catfish: 14" min. length (see Catfish below for possession limit)
Catfish (Blue, Channel, and Flathead): possession limit caught on a recreational license shall be 100. The 100 fish may be a single species of a combination of the above 3. In addition, an angler may possess a maximum of 25 undersize catfish of a single or combination of all 3 species.
White Bass: 50 daily
Yellow Bass: 50 daily
Other Freshwater Gamefish: No Limit

Commercial

On July 8, 1981, the East Carroll Police Jury (Parish Ordinance 1701) closed the lake to

trammel nets, gill nets, trotlines, and jug fishing during the period beginning May 15 through September 15 of each year, primarily to protect skiers. In March 1992, the following State law went in effect: Prohibits the use of gill and trammel nets in Lake Providence except during a special recurring trammel and gill netting season to commence each year at sunrise on November 1 and close at sunset on the last day of February the following year. The trammel and gill nets allowed during the special recurring season shall have a minimum mesh size of three and one-half inch bar and seven inch stretched. Said net may remain set overnight, but captured fish must be removed during daylight hours only. The legislative enactment is shown in Appendix A.

DRAWDOWN HISTORY

No significant drawdowns of Lake Providence have occurred. The current drawdown structure on Lake Providence is incapable of dewatering the lake at an acceptable rate. The East Carroll Parish Police Jury reported the maximum rate to be less than 0.1 ft. per day maximum. At this rate, it would take over 2 months to lower the lake 4 feet. Even without a large watershed, the lake is susceptible to refilling after moderate rainfall events. Fall/winter drawdowns to a level of 5 ft. below pool stage were attempted in 1973 and 1974 for the purpose of vegetation control. The lake was lowered 2 feet in 1973 before rains refilled the lake, while the 1974 drawdown did not result in any significant dewatering.

FISH KILLS/ DISEASE HISTORY/ LMBV

September 14, 2000 - A substantial fish kill of approximately 300,000 fish of several species was blamed on natural causes.

August 2008 – A fish kill confined to the north end of the lake, and believed to have been from natural causes due to a rainfall event and strong winds associated with Hurricane Gustav. "Millions" of two inch threadfin shad, along with several hundred freshwater drum and yellow bass, 200 bluegill, 30 crappie, 500 large gizzard shad, and one largemouth bass were documented.

CONTAMINANTS/ POLLUTION

Turbidity and pesticide pollution from nearby agricultural fields posed major problems in the 1970's - 1980's. Descriptions can be found in the above Events/Problems section. These problems were addressed by: 1) banning of certain pesticides by the E.P.A. and the LA Dept. of Agriculture and Forestry, 2) drainage improvements, and 3) changes in agricultural practices that reduced erosion. A fish consumption ban was in effect from 1978 – 1982, though currently there is no fish consumption or other contaminant advisory in effect.

BIOLOGICAL

Fish samples

History – Standardized sampling (as per LDWF guidelines) was initiated in 1991, while mostly rotenone sampling was conducted prior.

Gear- Table 1 below summarizes past and future sampling.

Table 1. Summary of past and scheduled fish sampling for Lake Providence, LA, from 1958 - 2015.

LAKE PROVIDENCE SAMPLING	
Note: All sampling conducted as per LDWF Standardized Sampling Guidelines.	
1958 – 1994 (Prior to Current Standardized Sampling)	Biomass (rotenone) Sampling: Fish populations were sampled with blockoff nets and rotenone in 21 of the years from 1958 – 1994. Samples were taken in at least one of five stations throughout the lake. *A biomass sample typically consists of a 1-acre area blocked off with a net and the fish toxicant rotenone applied throughout, and fish are collected for an hour after initial application and again the following morning.* Gill Net Sampling: Prior to current standardized sampling procedures, samples were taken with monofilament gill nets in 1975, 1983, 1987, and 1991. A single sample in 1975 consisted of one net each of 0.75", 1.25", and 2.0" square mesh, whereas the samples in 1983, 1987, and 1991 consisted of 3.0", 3.5", and 4.0" square mesh nets.
1991	Electrofishing: (4) 15 minute samples in fall *Note: electrofishing samples are defined as 900 seconds of time that electrical current is actually being applied into the water. In addition, other parameters such as sampling equipment, time of day, time of year and sample site are all consistent.*
1992	Shoreline Seining: three samples *Note: a seine sample is defined as a minimum of a 1 quadrant of a circle haul at each location, typically conducted during late spring - summer.*

1993	Electrofishing: (4) 15 minute samples in spring and fall Gill Nets: three samples total. *Note: a gill net sample consists of four gill nets of the following mesh sizes fished simultaneously in the same area: 2.5", 3.0", 3.5", and 4.0". Nets are fished overnight for approximately 24 hrs. Samples typically conducted during winter.*
1994	Biomass: *This was the last biomass (rotenone) sample conducted*. Three samples were taken.
1995	Electrofishing: (4) 15 minute samples in spring and fall Largemouth Bass Genetics, n=65
1997	Electrofishing: (4) 15 minute samples in spring and fall
1999	Electrofishing: (4) 15 minute samples spring and fall Largemouth Bass Age and Growth: n=60 Largemouth Bass Genetics: n=63
2001	Electrofishing: (4) 15 minute samples in spring and fall Gill Nets: six samples
2003	Electrofishing: (4) 15 minute samples in spring and fall
2005	Electrofishing: (3) 15 minute samples in spring only
2006	Gill Nets: six samples
2007	Electrofishing: (4) 15 minute samples in spring and fall Largemouth Bass Age and Growth, n=75 Lead Nets: six samples *Note: A lead net (fyke net) sample consists of 2 separate1.0" square mesh nets fished simultaneously in the same area for approximately 48 hrs. These nets are especially effective on crappie, sunfish, and catfish.*
2009	Electrofishing: (4) 15 minute samples in spring and fall
2010	Gill Nets: three samples during winter
2012	Electrofishing: (4) 15 minute samples in spring and fall Largemouth Bass Genetics
2013	Gill Nets: three samples during winter
2015	Electrofishing: (4) 15 minute samples in spring and fall

Lake records

No individual records are kept.

Stocking History

The following list in Table 2 is of fish stockings for Lake Providence from 1975 through 2007. Hybrid striped bass (HSB) and Florida largemouth bass (FLMB) have been the most commonly stocked fish. No fish have been stocked since 2007.

Table 2. History of fish stockings in Lake Providence, LA, from 1975 until present.

Date	Species	Size	Number
1975	northern largemouth	fingerlings	60,000
1976	hybrid striped bass	fingerlings	10,270
1977	hybrid striped bass	fingerlings	25,000
1978	hybrid striped bass	fingerlings	20,000
1979	hybrid striped bass	fingerlings	23,000
1980	hybrid striped bass	fingerlings	25,000
1981	hybrid striped bass	fingerlings	14,977
1982	hybrid striped bass	fingerlings	26,082
1983	hybrid striped bass	fingerlings	20,000
1984	hybrid striped bass	fingerlings	26,138
1985	hybrid striped bass	fingerlings	25,016
1987	Florida largemouth bass	fingerlings	25,000
1989	flathead catfish	fingerlings	6,000
1996	hybrid striped bass	sac fry	568,800
2000	Florida largemouth bass	fingerlings	15,960
2001	Florida largemouth bass	fingerlings	13,961
2002	Florida largemouth bass	fingerlings	14,000
2003	Florida largemouth bass	fingerlings	15,162
2004	Florida largemouth bass	fingerlings	13,794
2005	Florida largemouth bass	fingerlings	13,380
2007	Florida largemouth bass	fingerlings	13,950

Scheduled Fish Stockings

-*Hybrid Striped Bass*- The stocking of hybrid striped bass was discontinued after 1996 due to a declining popularity among anglers. No requests have been made for them to be stocked again for angling purposes.

-*Largemouth Bass*- Consecutive annual stockings of Florida largemouth bass into Lake Providence was initiated in 2000 and discontinued after 2007, when Inland Fisheries stocking procedures were amended. The stockings were in an effort to increase the presence of the Florida genome in the population and to potentially produce trophy size largemouth bass. The lake may be re-evaluated in the near future for the potential to produce trophy size bass by re-introducing Florida largemouth bass. Any future effort would most likely be conducted with a different stocking strategy, such as more or larger

fingerlings.

-*Other Species* –Self-sustaining populations of other recreational species in Lake Providence negates the need for any supplemental stockings. No current evidence indicates a need for additional species or stockings.

Species profile

A list of fishes collected from Lake Providence is found in **Appendix B**.

Genetics

Only the Florida strain of largemouth bass has been stocked into Lake Providence, with the exception of a single stocking of northern largemouth bass in 1975. Florida bass are typically stocked into waterbodies in which they are believed to have the potential to grow to a large size and produce above average size bass and possible trophy size fish. A single stocking was made in 1987, with no others stocked until 2000. Subsequent stockings were then made annually through 2007, when the effort to produce trophy size largemouth bass in Lake Providence was terminated. No genetic analysis was performed prior to 1987, but it was assumed that the population was comprised of only northern largemouth bass. Genetic analyses performed in 1995 and 1999 revealed only 1.5% pure Florida strain bass present in the population (n = 65 and 63, respectively) both years. Northern bass comprised 91% and 87% of the samples, respectively. The remaining fish were hybrid largemouth bass (contained genetic material of both northern and Florida largemouth bass) and comprised 7.6% and 11.4% of the samples, respectively. The presence of Florida genetics is believed to have been the result of the single stocking in 1987. An evaluation of the Florida bass stockings from 2000 – 2007 has yet to be performed.

Threatened/endangered/exotic species

It was reported in 2011 that Asian carp were seen jumping in Lake Providence. These fish are believed to be bighead carp *Hypophthalmichthys nobilis* or silver carp *H. molitrix*. LDWF has not yet confirmed the presence of these fish, but will conduct gill net samples in early 2012 to confirm presence and/or abundance. Grass carp have been documented in the past, though recent sampling has not produced any specimens.

CREEL

The objective of a creel survey is to determine a relative index of fishing pressure, catch rate, harvest, success, and preferred species fished for. No creel surveys have been performed on Lake Providence.

HYDROLOGICAL CHANGES

1. Lake Providence has been an inactive and completely separated oxbow lake of the Mississippi River for several hundred years.
2. Weirs placed at Baxter and Tensas Bayous in the early 1970's have held the lake at its current pool elevation of 90.0' MSL. Prior to these structures, water levels fluctuated more often, but did not recede significantly lower than the current pool stage.
3. Drainage alterations in the 1970's and 1980's surrounding Lake Providence have significantly reduced the inflows, subsequently reducing annual fluctuation.

WATER USE

Recreational:

1. Fishing - open to public
2. Skiing – popular, no designated ski area
3. Scuba Diving - not suitable (murky water)
4. Swimming - no public swimming area
5. Hunting - not permitted

Irrigation

Residential only

APPENDIX A.

Commercial Fishing Legislation

Title 76
Wildlife and Fisheries
Part VII. Fish and Other Aquatic Life
Chapter 1. Freshwater Sports and Commercial Fishing

163. Lake Providence, Gill Nets and Trammel Nets

A. Prohibits the use of gill nets and trammel nets in Lake Providence, East Carroll Parish, Lake Providence, Louisiana, except their use will be allowed for the legal harvest of commercial fish during a special recurring trammel and gill netting season to commence each year at sunrise on November 1 and close at sunset on the last day of February the following year.

B. The trammel and gill nets allowed during the special recurring season shall have a minimum mesh size of 3 2" bar and 7" stretched.

C. Said net may remain set overnight, but fish captured may be removed during daylight hours only.

AUTHORITY NOTE: Promulgated in accordance with R.S. 56:22 and R.S. 56:326.3.

HISTORICAL NOTE: Promulgated by the Department of Wildlife and Fisheries, Wildlife and Fisheries Commission, LR 18:294 (March 1992).

APPENDIX B.
Fish Species Documented in Lake Providence

AMIIDAE (Bowfin Family)

Bowfin, *Amia calva* (Linnaeus)

ANGUILLIDAE (Freshwater Eel Family)

American Eel, *Anguilla rostrata* (Lesueur)

ATHERINIDAE (Silverside Family)

Brook Silverside, *Labidesthes sicculus* (Cope)
Inland Silverside, *Menidia beryllina* (Cope)

CATOSTOMIDAE (Sucker Family)

Bigmouth Buffalo, *Ictiobus cyprinellus* (Valenciennes)
Black Buffalo, *Ictiobus niger* (Rafinesque)
Smallmouth Buffalo, *Ictiobus bubalus* (Rafinesque)
Spotted Sucker, *Minytrema melanops* (Rafinesque)

CENTRARCHIDAE (Sunfish Family)

Bluegill, *Lepomis macrochirus* (Rafinesque)
Black Crappie, *Pomoxis nigromaculatus* (Lesueur)
White Crappie, *Pomoxis annularis* (Rafinesque)
Largemouth Bass, *Micropterus salmoides* (Lacépède)
Spotted Bass, *Micropterus punctatus* (Rafinesque)
Redear Sunfish, *Lepomis microlophus* (Gunther)
Green Sunfish, *Lepomis cyanellus* (Rafinesque)
Longear Sunfish, *Lepomis megalotis* (Rafinesque)
Orange-spotted sunfish, *Lepomis humilis* (Girard)
Spotted sunfish, *Lepomis punctatus* (Valenciennes)
Warmouth, *Lepomis gulosus* (Cuvier)

CLUPEIDAE (Herring Family)

Gizzard Shad, *Dorosoma cepedianum* (Lesueur)
Threadfin Shad, *Dorosoma petenense* (Gunther)

CYPRINIDAE (Minnow Family)

Common Carp, *Cyprinus carpio* (Linnaeus)
Golden Shiner, *Notemigonus crysoleucas* (Mitchell)
Bullhead Minnow, *Pimephales vigilax* (Baird and Girard)
Blacktail Shiner, *Cyprinella venusta* (Girard)
Pallid Shiner, *Notropis amnis* (Hubbs and Greene)

App. B cont'd.

Grass Carp, *Ctenopharyngodon idella* (Valenciennes)
Taillight Shiner, *Notropis maculates* (Hay)

FUNDULIDAE (Topminnow Family)

Golden Topminnow, *Fundulus chrysotus* (Gunther)
Blackstripe Topminnow, *Fundulus notatus* (Rafinesque)
Blackspotted Topminnow, *Fundulus olivaceus* (Storer)
Southern Starhead Topminnow, *Fundulus nottii* (Agassiz)

ICTALURIDAE (Freshwater Catfish Family)

Yellow Bullhead, *Ameiurus natalis* (Lesueur)
Black Bullhead, *Ameiurus melas* (Rafinesque)
Brown Bullhead, *Ameiurus nebulosus* (Lesueur)
Channel Catfish, *Ictalurus punctatus* (Rafinesque)
Blue Catfish, *Ictalurus furcatus* (Rafinesque)
Flathead Catfish, *Pylodictis olivaris* (Rafinesque)
Tadpole Madtom, *Noturus gyrinus* (Mitchill)

LEPISOSTEIDAE (Gar Family)

Alligator Gar, *Atractosteus spatula* (Lacépède)
Spotted Gar, *Lepisosteus oculatus* (Winchell)
Longnose Gar, *Lepisosteus osseus* (Linnaeus)
Shortnose Gar, *Lepisosteus platostomus* (Rafinesque)

POECILIIDAE (Livebearer Family)

Mosquitofish, *Gambusia affinis* (Baird and Girard)

MORONIDAE (Temperate Bass Family)

White Bass, *Morone chrysops* (Rafinesque)
Yellow Bass, *Morone mississippiensis* (Jordan and Eigenmann)
Hybrid Striped Bass, *Morone chrysops x Morone saxatilis* (Spoons and Pans)

PERCIDAE (Darter and Perch Family)

Cypress Darter, *Etheostoma proeliare* (Hay)

SCIAENIDAE (Drum Family)

Freshwater Drum, *Aplodinotus grunniens* (Rafinesque)